



## **User Manual**

### **Per Port Monitoring Models**

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## 1. Introduction

The ServerLink Per Port Monitoring PDU is a network ready device designed and equipped with an Intelligent True RMS Current Meter to indicate the individual power consumption of each outlet or total PDU power consumption.

The ServerLink PDU offers an easy to set up and user-friendly interface. The software enables you to remotely monitor power consumption of a single PDU or multiple PDUs.

### Features:

- Built-in web server allowing real time monitoring of each individual outlet or total PDU current consumption
- Built-in True RMS current meter
- Easy Setup. The meter can display the IP address of the PDU
- Homepage supports SSL
- Provides audible alarm when the power consumption exceeds the warning threshold or overload threshold
- Send email and traps when the power consumption exceeds the warning threshold or overload threshold
- Utility software can monitor a large amount of ServerLink PDUs at the same time
- Supports SNMP and provides MIB for the PDU to be monitored by NMS
- Indicates outlet and circuit status with LED
- Supports power on sequence
- Supports user-defined delayed time for power on and power off
- Scheduled control of outlet power
- User-defined group outlet control
- Auto reboots locked devices by pinging their IP address
- Supports network time protocols
- Optional probes can support temperature and humidity monitoring
- Provides power protection via the circuit breaker

## 2. Package Contents

The standard ServerLink PDU package contains a Power Distribution Unit with supporting hardware and software.

- Power Distribution Unit
- Rack Mount Brackets
- CD-ROM containing:
  - ServerLink PDU User Manual
  - ServerLink PDU Utility User Manual
  - ServerLink PDU Utility Software
  - MIB: Management Information Base for Network (ServerLink.mib)
  - Adobe Acrobat Reader

### 3. Function



Functions	Description
Ethernet	<ul style="list-style-type: none"> <li>● The Network connection for the built-in web server</li> </ul>
Audible Alarm	<ul style="list-style-type: none"> <li>● PDU exceeds warning threshold - 1 beep per second</li> <li>● PDU exceeds overload threshold - 3 beeps per second</li> </ul> <p><b>Note:</b> The audible alarm will not change beeping status until the current drops more than 0.5A below the warning or overload threshold</p>
Function Button	<ul style="list-style-type: none"> <li>● Press and release to turn off the warning beep. The overload beeping cannot be cancelled</li> <li>● Press and hold, after 1 beep, release the button. The meter will display the current information and temperature/humidity in outlet sequence</li> <li>● Press and hold, after 2 beeps release the button. The meter will display the IP address of the PDU</li> <li>● Press and hold, after 4 beeps release the button and the PDU will change the way to assign the IP address...via DHCP or Fixed IP</li> <li>● Press and hold, after 6 beeps release the button. The PDU will reset the power to all outlets and restore all settings to factory default</li> </ul>
Meter	<ul style="list-style-type: none"> <li>● Displays the current consumption or IP Address</li> </ul>
ID	<ul style="list-style-type: none"> <li>● Indicates the outlet number for the meter display</li> </ul>

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## LED Indicator

- SSL (Yellow): Light on means web access is protected by SSL
- DHCP (Green): Light on means PDU is assigned an IP address via DHCP
- Outlet 1-8 (Green): Light on indicates outlet power is on. Light off indicates outlet power is off
- Status (Red): Indicates each circuit status

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## ENV

- RJ11 connector for optional environmental monitoring probe to monitor temperature and humidity

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## Circuit Breaker

- Overload power protection
-

## 4. Installation

### Rack Mount Instructions

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature specified by the manufacturer.

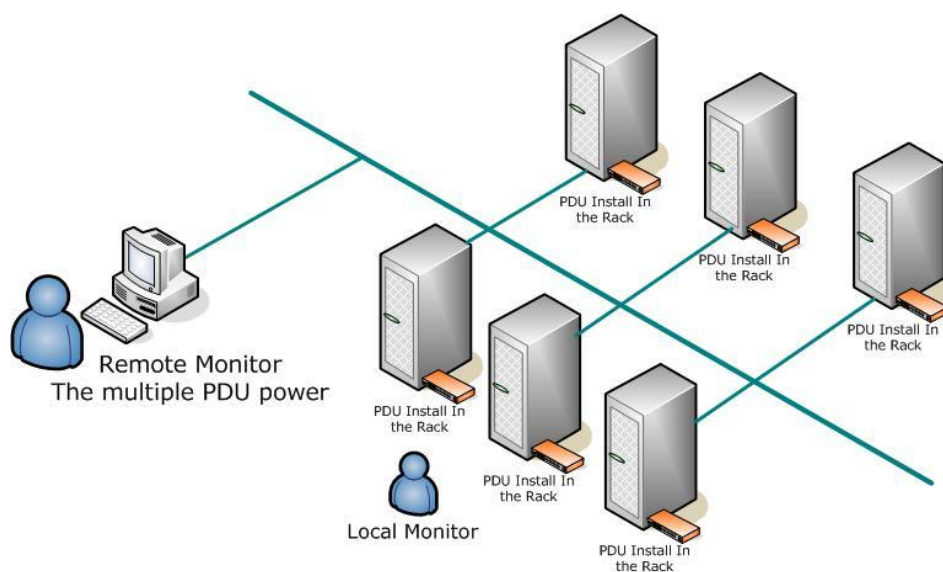
B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

E) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

### Diagram



## Hardware

1. Install mounting brackets
2. The ServerLink PDU comes with brackets for mounting in a rack. To mount the PDU into a rack, perform the following procedure
3. Attach the mounting brackets to the unit, using the four retaining screws provided for each of the brackets
4. Choose a location for the brackets.
5. Align the mounting holes of brackets with the notched hole on the vertical rail and attach with the retaining screws
6. Connect input and output power
7. Connect Ethernet cable to the PDU
8. Switch on the PDU

### **Note 1:**

The default setting to assign the IP address is DHCP. If the PDU cannot get the IP from a DHCP server, the IP address will default to 192.168.0.216



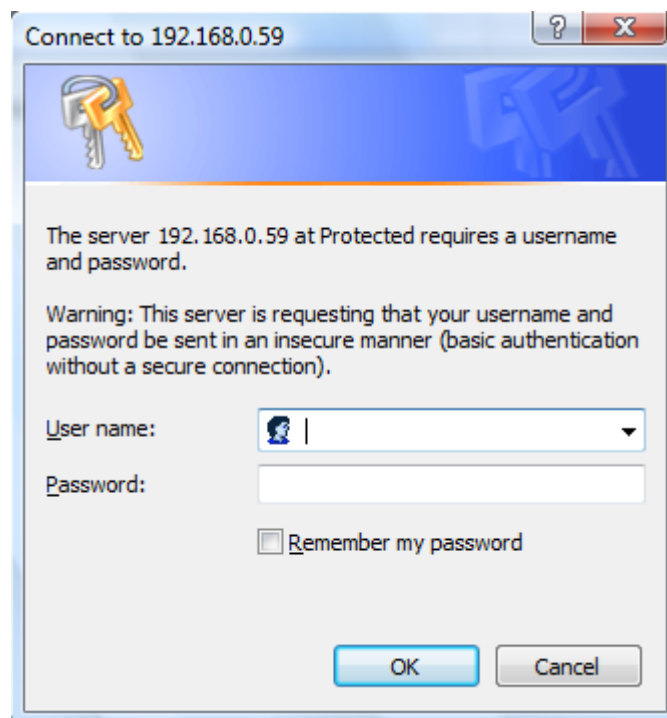
## 5. Web Interface

### Login:

Enter the ServerLink PDU IP address into a web browser

Default User Name is **snmp**


Default Password is **1234**



## Information: PDU

Displays individual power consumption of each outlet or total PDU power consumption

If an optional environmental probe has been connected, it will display the temperature and humidity information

		
Total load: 0.0 A , Status: Normal		
<b>Information</b>	<b>PDU</b>	
<a href="#">PDU</a>	PDU1	0.0 A Normal
<a href="#">System</a>	PDU2	0.0 A Normal
<b>Control</b>	PDU3	0.0 A Normal
<a href="#">Outlet</a>	PDU4	0.0 A Normal
<a href="#">Group</a>	PDU5	0.0 A Normal
<a href="#">Schedule</a>	PDU6	0.0 A Normal
<a href="#">Ping Action</a>	PDU7	0.0 A Normal
<b>Configuration</b>	PDU8	0.0 A Normal
<a href="#">PDU</a>	Total Current	0.0 A Normal
<a href="#">Threshold</a>	<b>Option Device</b>	
<a href="#">User</a>	Temperature	+20.4 C
<a href="#">Network</a>	Humidity	58 %
<a href="#">Mail</a>		
<a href="#">SNMP</a>		
<a href="#">SSL</a>		
<a href="#">Time</a>		

## Information: System

Displays PDU system information, including:

Model No.


Firmware Version

MAC Address

System Name

System Contact

Location

	
Total load: 0.0 A , Status: Normal	
<b>Information</b>	<b>Model No.</b> SLP-SPP1608-H
<a href="#">PDU</a>	<b>Firmware Version</b> s4.82-090828-8cb8s
<b>System</b>	<b>MAC Address</b> 00:16:18:77:09:17
<b>Control</b>	<b>System Name</b> <input type="text" value="PDU"/>
<a href="#">Outlet</a>	<b>System Contact</b> <input type="text" value="Admin"/>
<a href="#">Group</a>	<b>Location</b> <input type="text" value="Office"/>
<a href="#">Schedule</a>	<input type="button" value="Apply"/>
<a href="#">Ping Action</a>	
<b>Configuration</b>	
<a href="#">PDU</a>	
<a href="#">Threshold</a>	
<a href="#">User</a>	
<a href="#">Network</a>	
<a href="#">Mail</a>	
<a href="#">SNMP</a>	
<a href="#">SSL</a>	
<a href="#">Time</a>	

## Control: Outlet

Displays PDU outlet on/off status

Select the outlet by checking the box and then click ON, OFF or OFF/ON button to control the output power for PDU

**ON:** Press this button to turn on the assigned outlets

**OFF:** Press this button to turn off the assigned outlets

**OFF/ON:** Press this button to reboot the assigned outlets

**SERVERLINK**  
**PDU**

Total load: 0.0 A , Status: Normal

<b>Information</b>	<b>Outlet Name</b>	<b>Status</b>	<input type="checkbox"/>
<a href="#">PDU</a>	OutletA	ON	<input type="checkbox"/>
<a href="#">System</a>	OutletB	ON	<input type="checkbox"/>
<b>Control</b>	OutletC	ON	<input type="checkbox"/>
<b>Outlet</b>	OutletD	ON	<input type="checkbox"/>
<a href="#">Group</a>	OutletE	ON	<input type="checkbox"/>
<a href="#">Schedule</a>	OutletF	ON	<input type="checkbox"/>
<a href="#">Ping Action</a>	OutletG	ON	<input type="checkbox"/>
<b>Configuration</b>	OutletH	ON	<input type="checkbox"/>
<a href="#">PDU</a>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input type="button" value="OFF/ON"/>
<a href="#">Threshold</a>			
<a href="#">User</a>			
<a href="#">Network</a>			
<a href="#">Mail</a>			
<a href="#">SNMP</a>			
<a href="#">SSL</a>			
<a href="#">Time</a>			

## Control: Group

Control outlet power for multiple outlets

**Setting:** Press the setting button to enter setting mode


**Outlet:** Assign the outlet in a group

**Note:** The outlet number needs to be input in alphabetical order

**ON:** Press this button to turn on the assigned group

**OFF:** Press this button to turn off the assigned group

**Active:** Select this check box to enable the group to be controlled



Total load: 0.0 A , Status: Normal

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[System](#)

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**Outlet  
(A,B,C)**

A, <input type="text"/>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input checked="" type="checkbox"/>
B, <input type="text"/>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input checked="" type="checkbox"/>
C, <input type="text"/>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input checked="" type="checkbox"/>
D, <input type="text"/>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input checked="" type="checkbox"/>
E, <input type="text"/>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input checked="" type="checkbox"/>
F, <input type="text"/>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input checked="" type="checkbox"/>
G, <input type="text"/>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input checked="" type="checkbox"/>
H, <input type="text"/>	<input type="button" value="ON"/>	<input type="button" value="OFF"/>	<input checked="" type="checkbox"/>

**Active**

## Control: Schedule

Control the assigned outlet by pre-defined schedule


**Outlet:** Assign the outlet that you want to be controlled in this schedule

**Every:** Set a single day, a week day or every day

**Date:** If "Sgl" is selected, you need to input a date here

Action:	Begin:	End:
ON	Turn on outlet at this time	None
OFF	Turn off outlet at this time	None
OFF/ON	Turn off outlet at this time	Turn on outlet at this time
ON/OFF	Turn on outlet at this time	Turn off outlet at this time

**Active:** Select this check box to enable the assigned scheduled control



Total load: 0.0 A , Status: Normal

Information	Current Time: 2007/01/01 02:22:04
	<div style="display: flex; justify-content: space-between;"> <div>Outlet (A,B,...)</div> <div>Every</div> <div>Date (yy/mm/dd)</div> <div>Begin (hh:mm)</div> <div>End (hh:mm)</div> <div>Action</div> <div>Active</div> </div>
<b>Control</b> <a href="#">PDU</a> <a href="#">System</a> <a href="#">Outlet</a> <a href="#">Group</a> <b>Schedule</b>	A, Mon 09/06/30 07:59 18:30 ON <input type="checkbox"/>
	B, Mon 09/06/30 07:59 18:30 ON <input type="checkbox"/>
	C, Mon 09/06/30 07:59 18:30 ON <input type="checkbox"/>
<b>Configuration</b> <a href="#">PDU</a> <a href="#">Threshold</a> <a href="#">User</a> <a href="#">Network</a> <a href="#">Mail</a> <a href="#">SNMP</a> <a href="#">SSL</a> <a href="#">Time</a>	A, Mon 06/01/01 00:07 00:07 OFF <input type="checkbox"/>
	A, Mon 06/01/01 00:07 00:07 OFF <input type="checkbox"/>
	A, Mon 06/01/01 00:07 00:07 OFF <input type="checkbox"/>
	A, Mon 06/01/01 00:07 00:07 OFF <input type="checkbox"/>
	A, Mon 06/01/01 00:07 00:07 OFF <input type="checkbox"/>

## Control: Ping Action


Automatically reboots locked devices by pinging their IP address

**Ping IP Address:** Set the device IP address that you want monitored

**Response 10 minutes:** The PDU will ping the assigned IP address once every minute. If the device does not respond, the number will be increased by one. After 10 attempts (10 minutes), if the device has not responded, the number will display 10 and the PDU will carry out the assigned action automatically

**Action:** Select outlet action to "OFF" or "OFF/ON"

**Active:** Select this check box to enable this Ping function

					
Total load: 0.0 A , Status: Normal					
Information	Ping IP Address	Response 10 minutes	Outlet	Action	Active
<a href="#">PDU</a>					
<a href="#">System</a>	<input type="text" value="19.168.23.200"/>	0	OutletA	OFF <input type="button" value="v"/>	<input type="checkbox"/>
<b>Control</b>					
<a href="#">Outlet</a>	<input type="text" value="19.168.23.201"/>	0	OutletB	OFF <input type="button" value="v"/>	<input type="checkbox"/>
<a href="#">Group</a>	<input type="text" value="19.168.23.202"/>	0	OutletC	OFF <input type="button" value="v"/>	<input type="checkbox"/>
<a href="#">Schedule</a>					
Ping Action	<input type="text" value="19.168.23.203"/>	0	OutletD	OFF <input type="button" value="v"/>	<input type="checkbox"/>
<b>Configuration</b>					
<a href="#">PDU</a>	<input type="text" value="19.168.23.204"/>	0	OutletE	OFF <input type="button" value="v"/>	<input type="checkbox"/>
<a href="#">Threshold</a>	<input type="text" value="19.168.23.205"/>	0	OutletF	OFF <input type="button" value="v"/>	<input type="checkbox"/>
<a href="#">User</a>					
<a href="#">Network</a>	<input type="text" value="19.168.23.206"/>	0	OutletG	OFF <input type="button" value="v"/>	<input type="checkbox"/>
<a href="#">Mail</a>					
<a href="#">SNMP</a>	<input type="text" value="19.168.23.207"/>	0	OutletH	OFF <input type="button" value="v"/>	<input type="checkbox"/>
<a href="#">SSL</a>					
<a href="#">Time</a>					

## Configuration: PDU


Set the outlet name and delay time

**Name:** Rename the outlet

**ON:** Set the delay time for power on sequence

**OFF:** Set the delay time for power off sequence

**Note:** The maximum delay time is 255 seconds



Total load: 0.0 A , Status: Normal

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Name	ON Delay (sec)	OFF Delay (sec)
<input type="text" value="OutletA"/>	<input type="text" value="1"/>	<input type="text" value="1"/>
<input type="text" value="OutletB"/>	<input type="text" value="2"/>	<input type="text" value="2"/>
<input type="text" value="OutletC"/>	<input type="text" value="3"/>	<input type="text" value="3"/>
<input type="text" value="OutletD"/>	<input type="text" value="4"/>	<input type="text" value="4"/>
<input type="text" value="OutletE"/>	<input type="text" value="5"/>	<input type="text" value="5"/>
<input type="text" value="OutletF"/>	<input type="text" value="6"/>	<input type="text" value="6"/>
<input type="text" value="OutletG"/>	<input type="text" value="7"/>	<input type="text" value="7"/>
<input type="text" value="OutletH"/>	<input type="text" value="8"/>	<input type="text" value="8"/>
<input type="button" value="Apply"/>	<input type="button" value="Apply"/>	<input type="button" value="Apply"/>



## Configuration: Threshold

Set the warning and overload threshold for each outlet

Set the lower and upper threshold for temperature and humidity



Total load: 0.0 A , Status: Normal

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Name	Threshold (Amp)	
	Warning	Overload
PDU1	<input type="text" value="8"/>	<input type="text" value="10"/>
PDU2	<input type="text" value="8"/>	<input type="text" value="10"/>
PDU3	<input type="text" value="8"/>	<input type="text" value="10"/>
PDU4	<input type="text" value="8"/>	<input type="text" value="10"/>
PDU5	<input type="text" value="8"/>	<input type="text" value="10"/>
PDU6	<input type="text" value="8"/>	<input type="text" value="10"/>
PDU7	<input type="text" value="8"/>	<input type="text" value="10"/>
PDU8	<input type="text" value="8"/>	<input type="text" value="10"/>
	Lower	Upper
Temperature	<input type="text" value="1"/>	<input type="text" value="99"/>
Humidity	<input type="text" value="1"/>	<input type="text" value="99"/>

Apply

## Configuration: User

Change ID (Username) and password. ID and password are case sensitive

Default ID is **snmp**

Default password is **1234**

**SERVERLINK**  
**PDU**

Total load: 0.0 A , Status: Normal


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**Original**  
ID  
Password  
**New**  
ID  
Password

## Configuration: Network

PDU network information

**Enable DHCP:** Change the way to assign the IP address for the PDU



Total load: 0.0 A , Status: Normal

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**IP Address**  
Host Name   
IP Address   
Subnet Mask   
Gateway   
☒ Enable DHCP

**DNS Server IP**  
Primary DNS IP   
Secondary DNS IP

## Configuration: Mail

When an event occurs, the PDU can send an email message to a specified email address

**Email Server:** This setting must be a local or public fully qualified domain name. Eg. mailserver.domain.local or mail.domain.com.au (It cannot be an IP address)

**Sender's Email:** Input the sender's email address

**Email Address:** Input the recipient's email address

The message in the email will be as follows:

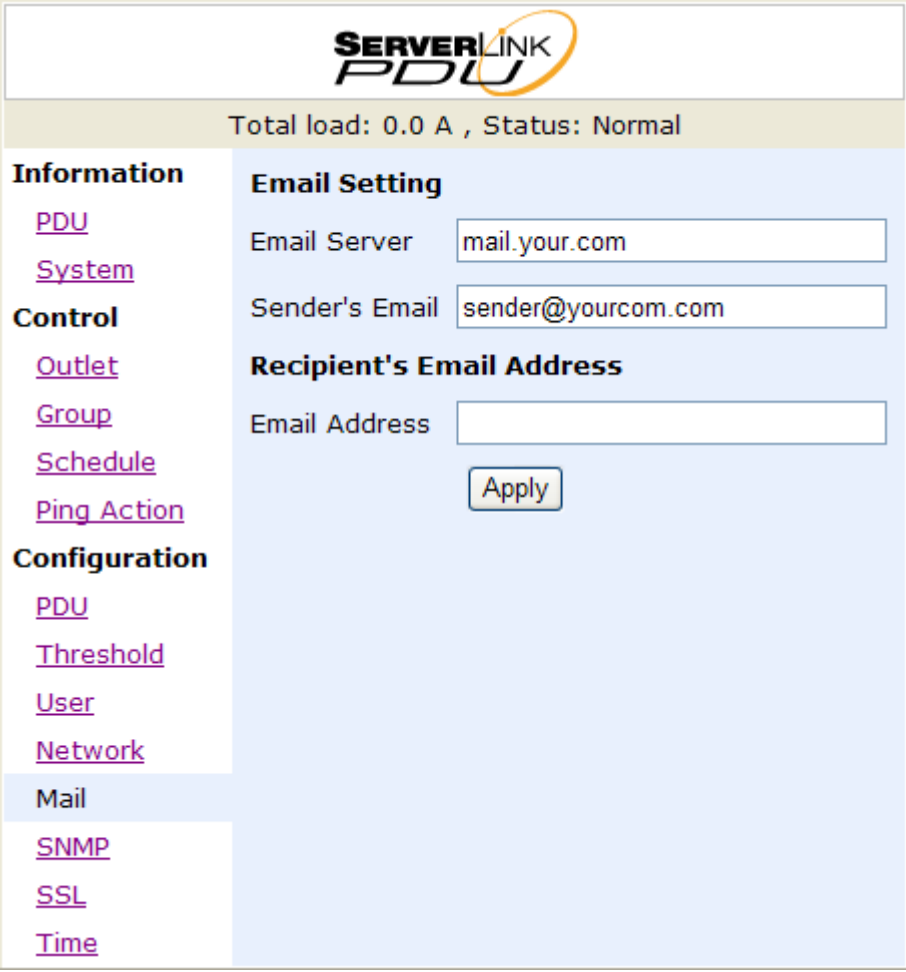
XXXXXXXXX

The above indicates the outlet status of ports A to H in order

X=0 : means the power off

X=1 : means the power on

**Note:** Make sure DNS server can resolve the Email Server's domain name



The screenshot displays the 'SERVERLINK PDU' web interface. At the top, the status bar shows 'Total load: 0.0 A , Status: Normal'. The left sidebar contains a menu with sections: 'Information' (PDU, System), 'Control' (Outlet, Group, Schedule, Ping Action), 'Configuration' (PDU, Threshold, User, Network, Mail, SNMP, SSL, Time), and 'Mail' is currently selected. The main content area is titled 'Email Setting' and includes fields for 'Email Server' (mail.your.com), 'Sender's Email' (sender@yourcom.com), and 'Recipient's Email Address' (Email Address). An 'Apply' button is located below the 'Email Address' field.

## Configuration: SNMP

When an event occurs, the PDU can send out a trap message to a specified IP address

**Trap Notification:** Set receiver IP address for trap

**Community:** Set SNMP community

Read Community is public and fixed

Default Write Community is "public" and can be modified by user

**SERVERLINK**  
**PDU**

Total load: 0.0 A , Status: Normal

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**Trap Notification**  
Receiver IP   
  
**Community**  
Read **public**  
Write

## Configuration: SSL

Enable SSL for web communication

User must input the correct ID and password to enable SSL function

Default ID is **snmp**

Default password is **1234**

**SERVERLINK**  
**PDU**

Total load: 0.0 A , Status: Normal

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**Enable SSL**☐

**Confirmation**  
ID  
Password

## Configuration: Time

Set the time for schedule control.

**Internet Time Setting:** Get time from the assigned network time server.

**System Time:** Input time manually.

**SERVERLINK**  
**PDU**

Total load: 0.0 A , Status: Normal

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[SNMP](#)  
[SSL](#)  
Time

**Internet Time Setting**  
Time Between Updates   
Primary Time Server   
Secondary Time Server   
Time Zone   
  
**System Time 2007/01/01 02:20:23**  
System Time  
(yyyy/mm/dd hh:mm:ss)